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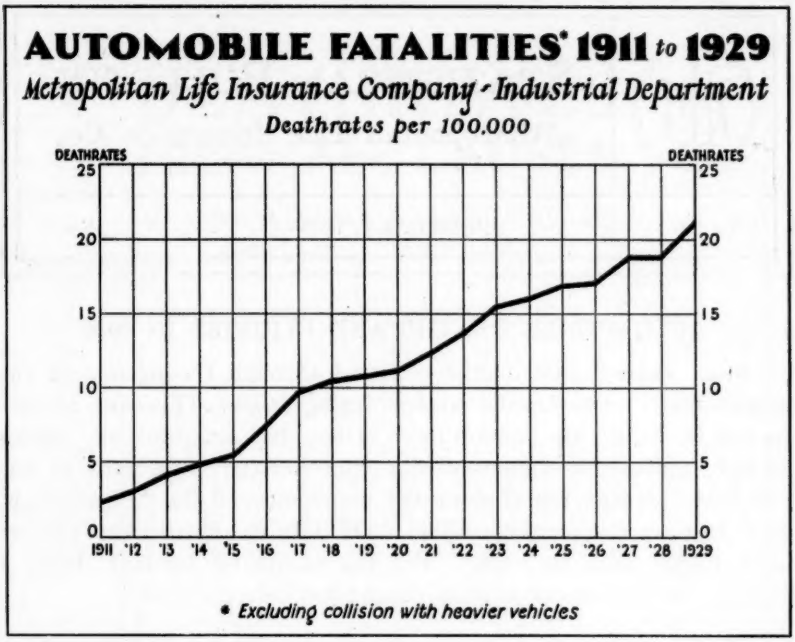
AUTOMOBILE DEATHS AND INJURIES IN 1929

More than 31,400 deaths occurred through the agency of the automobile in the United States during 1929. This was accompanied by nearly one million more or less disabling injuries. Automobile fatalities now account for approximately one-third of the accidental deaths reported in the experience of the Metropolitan Life Insurance Company. The 1929 fatality figure was 12 per cent. higher than in 1928.* For the month of January, 1930, a further increase in automobile deaths has been recorded.

Deaths per 100,000 from Automobile Injuries in 1929 and 1928. Metropolitan Life Insurance Company. Industrial Department.

CIRCUMSTANCES OF INJURY	DEATHRATE PER 100,000		PER CENT. INCREASE (+) OR DECREASE (−) 1929-1928	PER CENT. OF TOTAL DEATHS FROM AUTOMOBILE INJURIES, 1929
	1929	1928		
ALL AUTOMOBILE INJURIES	21.8	19.7	+10.7	100.0
Excluding collisions with railroad trains and street cars	20.7	18.5	+11.9	95.2
Collision with pedestrian	10.7	10.1	+ 5.9	49.1
Collision with vehicle	4.4	3.3	+33.3	19.8
Railroad train	.8	.9	—11.1	3.6
Street car	.3	.3	....	1.2
Other automobile	2.4	1.6	+50.0	11.0
Other vehicle	.9	.5	+80.0	4.0
Collision with fixed object	1.1	.7	+57.1	5.2
Non-collision injury	3.1	2.5	+24.0	14.3
Asphyxiation by exhaust gas	.2	.1	+100.0	.8
Other non-collision injury	2.9	2.4	+20.8	13.5
Type of injury not specified	2.5	3.0	—16.7	11.6

*If deaths in collisions of automobiles with railroad trains or street cars are included for both years, the increase was 10.7 per cent.



One-half of the persons killed by automobiles last year were pedestrians. The pedestrian deathrate increased from 10.1 to 10.7 per 100,000. The rate for collisions between automobiles and railroad trains decreased slightly, and the collision fatalities involving street cars remained stationary. The heaviest increase in mortality arose from collision between two automobiles. In 1928, this deathrate was 1.6 per 100,000 and in 1929, 2.4 per 100,000. Collisions between automobiles and fixed objects increased from .7 to 1.1 deaths per 100,000.

Non-collision automobile injuries also increased. The deathrate was 2.5 per 100,000 in 1928 as compared with 3.1 per 100,000 in 1929. The deathrate from automobile exhaust gas doubled during the year just closed. The table on page 1 gives the chief facts for Metropolitan Industrial policyholders in 1928 and 1929.

HOW CITIES MAY REDUCE AUTOMOBILE DEATHS

Although there were more deaths from automobile accidents in 1929 than in any previous year, 24 large cities had (up to November 2d) lower mortality rates from this cause in 1929 than in 1928.

The records for these 24 cities stand out in bold relief in a year when the estimated death total in automobile killings in Continental United States rose to the unprecedented total of 31,400.

Safety workers obviously are vitally interested in finding out how the improvement was brought about in these cities. Consequently, when the BUREAU OF THE CENSUS, last November, announced the facts for automobile fatalities in 78 large cities, the Metropolitan Life Insurance Company wrote to the officials of the 24 which showed improvement, to determine, if possible, what factors were operative in lowering the deathrate. Replies were received from 15.* The facts in these replies are summarized below, and some of the data thus brought out may well have general application to the safety movement throughout the United States.

The most outstanding development brought out by the Metropolitan's inquiry is that in all 15 cities alert safety officials had emphasized safety education in the schools and had employed measures to protect school children on their way to and from the school buildings. In seven cities, the active interest of the school children themselves was enlisted and the boys were made members of junior traffic patrols. In one New England city, safety literature was printed by training school boys. In five cities, special traffic officers, or officials, gave talks to the pupils. It is thus obvious that all 15 of these municipalities concentrated their safety program at the very point where it was possible to make the greatest gain, namely, on saving lives among the children; for, in American cities one-third of the deaths from automobile accidents affect children.

With respect to better traffic regulation and stricter enforcement of traffic rules, the following items were brought out. Six cities added more or less to their installations of traffic signals and lights; four established more full-stop intersections and either eliminated some of the grade crossings or took steps to make them safer; four added to the number of safety islands or safety zones; two increased the number of one-way streets. In eight cities, the officials state that there was stricter enforcement of traffic regulations last year, with special emphasis upon such important items as increase of traffic officers at heavily traveled intersections during peak hours, additional motorcycle men, drives against improper lights, etc.

*In each of these 15 cities, the comparison with 1928 was restricted to deaths where the accidents actually occurred within the city limits, thus eliminating deaths of persons injured elsewhere, but who died in the hospitals of these cities.

In several cities, the officials have realized the value of publicity in their campaigns against automobile accidents. In three, successful efforts were made to secure the interest and cooperation of the press; and three delegated traffic officers, or officials, to lecture on safety before civic or fraternal organizations. One city used the radio, while another employed billboard publicity and distributed safety literature. Safe driving contests, with prizes, were featured by one city.

In one city, those in control of traffic do not believe in "drives," and report that much of the credit for reducing the automobile fatality rate, in 1929, must be ascribed to a policy of strictly enforcing *at all times* a "workable traffic ordinance." In this city, which has a population of more than 325,000, an average of 3,000 automobiles a month are tagged for "minor traffic regulations" and the monthly average for arrests is about four hundred. The officials report that as the result of a long period of education and enforcement, pedestrians are cooperating in obeying the traffic lights.

Other safety measures mentioned include removal of trees or shrubs obstructing the view at intersections, brake-testing weeks and drives for safe brakes, and cooperation with the NATIONAL SAFETY COUNCIL. It is claimed for one city that violators of traffic laws are invariably prosecuted without regard to political or social standing or influence.

One safety official lays special stress on an item mentioned by none of the others: the handling of that city's traffic "by officers who specialize in this work and perform regularly no other police duty."

PHYSICAL DEFECTS OF WORKING BOYS

Until very recent times there has been a gap between the service rendered by preventive medicine for young children, as practiced by pediatricians, and the work for adults as carried on by internists. The young adolescent seems to have been ignored for the reason that the illness rate and deathrate at that time in life are at a minimum. Contact with employed boys and girls between fourteen and seventeen years of age in New York City has enabled physicians of the Department of Health to appraise some of the hygienic and personal problems which confront the adolescent during his or her first years in business or industrial life. May we expect fewer serious maladjustments in adult life if hygienic abnormalities in adolescence are corrected? Are the services of the physician who understands the

youth essential to a good start in adult life? The preliminary results available from the study of the medical service at the WEST SIDE CONTINUATION SCHOOL in New York City suggest that fundamentally important work can be done in the interest of the growing youth, that slight impairments can be discovered and corrected with greater ease and with promise of more permanent effect at this time of life than perhaps at any other age range. The results of the inquiry are set forth below:

THE FINDINGS

Only 355 in a group of 2,691 working boys between the ages of fourteen and seventeen years (or about one in eight) had no physical impairments or defects, according to figures compiled by the Metropolitan Life Insurance Company, and based upon medical examinations made by a Department of Health physician at the WEST SIDE CONTINUATION SCHOOL, NEW YORK CITY. The remaining 2,336 boys, or 86.8 per cent. of those examined, were found to be impaired in one way or another. These findings conform closely to those of a similar study made several years ago in another continuation school. The fact that two groups of working boys, examined by the same physician at different times, presented the same general picture as to physical defects makes it highly probable that these studies reflect conditions as they exist generally among New York City boys who are employed in offices, shops and factories.

In the recent study, no less than 1,593, or 59 per cent. of the total boys, gave evidences of unclean teeth. This condition was, far and away, the chief deficiency noted, and it is closely associated with 282 cases of dental caries or cavities (in 10.5 per cent. of all boys examined). Pyorrhea was present in 171 cases, or in 6.4 per cent. of the total number examined. The regular daily use of a tooth brush was unknown to a large majority, and in many instances the evidence indicated that the brush was not used at all.

Nearly 20 per cent. of the boys were found to be underweight, but only a small minority (less than 2 per cent.) were reported as overweight. Malnutrition was present among 3.2 per cent. of the boys. Defective vision was reported among 502, or 18.6 per cent. of the total, although corrective lenses were worn by 130 of these. Thirty boys were wearing glasses that were considered unsuited to their eyes. Another 146 boys possessed eye-glasses, but they were not used regularly, and were considered, by the boys, a sign of physical inferiority. Other impairments in the order named were adenitis, 7.6 per cent.; flat or undeveloped chest, 5.9 per cent.;

poor muscle tone, 5.4 per cent.; heart conditions, 4.6 per cent. (of these about one-third were serious organic defects and the remaining two-thirds functional conditions); enlarged or infected tonsils, 4.8 per cent.; anemia, 2.3 per cent.; and evidence of old healed tuberculosis of the lung in 3.3 per cent.

Physical Defects of Working Boys, Ages 14 to 17 Years
West Side Continuation School, New York City

Kind of Impairment	Number of Boys	Per Cent. of Boys
Total Boys Examined	2,691	100.0
With no impairments	355	13.2
With impairments	2,336*	86.8*
Impairments:		
Underweight	527	19.6
Overweight	48	1.8
Malnutrition	85	3.2
Defects of vision	502	18.6
Defective hearing	15	0.6
Nasal obstruction	148	5.5
Defective tonsils	130	4.8
Defective teeth (caries)	282	10.5
Unclean teeth	1,593	59.2
Pyorrhea	171	6.4
Flat or undeveloped chest	158	5.9
Evidence of old healed tuberculosis	89	3.3
Organic heart defects	42	1.6
Functional heart defects	81	3.0
Skin condition (acne)	75	2.8
Constipation	22	0.8
Adenitis	205	7.6
Poor development, poor muscle tone	145	5.4
Flat feet	106	3.9
Anemia	61	2.3
Low mentality	46	1.7
Excessive cigarette smoking	165	6.1

Correcting Defects and Impairments

After examination, every boy was informed of his shortcomings and was advised by the physician as to how these might best be remedied—either by his own efforts or with the aid of his private physician or of a clinic. In a large number of cases this advice was followed, as is evidenced by the results shown at a follow-up examination made after a period of six months. The facts are available for a group of 485 boys who received a second examination, and it is interesting to note that a large proportion of the conditions found

*In many cases more than one impairment was reported for the same individual. Accordingly the items below do not add up to this total.

originally had been remedied, or improved, by the time of the second examination. In the group of 485 boys who received at least two examinations, the first one disclosed 1,223 defects or impairments, but at the time of re-examination, six months later, 583 of the original deficiencies, or nearly one-half of the total, had been remedied or removed. For example, of the 36 boys who had shown uncorrected defects of vision, 19 had remedied the defect. Sixty-one per cent. of those requiring dental treatment had received it, and 35 per cent. of those having unclean teeth showed improvement. Nasal obstructions were remedied in 57 per cent. of the cases and defective tonsils in the same proportion. Thirty-five out of the 111 boys that had been underweight originally were, upon subsequent examination, classified as normal, and even among the overweights three out of eleven showed improvement. Practically every type of defect at the time of the follow-up examination, six months later, showed more or less improvement. The following table indicates the extent of improvement observed among 485 boys who had the benefit of at least two examinations.

Number of Defects Remedied or Improved Findings Among 485 Boys Who Were Re-examined Six Months Following the First Examination. West Side Continuation School, New York City

Defects Reported at First Examination	Number of Defects at First Examination	Defects Improved or Remedied Within Six Months	
		Number	Per Cent.
Total	1,223	583	47.7
Underweight	111	35	31.5
Overweight	11	3	27.3
Malnutrition	25	8	32.0
Defects of vision uncorrected (no eyeglasses)	36	19	52.8
Nasal obstruction	35	20	57.1
Defective tonsils	28	16	57.1
Defective teeth (caries)	44	27	61.4
Unclean teeth	296	104	35.1
Pyorrhea	34	20	58.8
Flat or undeveloped chest	38	12	31.6
Organic heart defects	9	2	22.2
Functional heart defects	17	7	41.2
Skin conditions (acne)	12	7	58.3
Adenitis	39	19	48.7
Poor development, poor muscle tone	38	12	31.6
Flat feet	25	13	52.0
Anemia	17	8	47.1
Personal hygiene	9	7	77.8
Excessive cigarette smoking	18	8	44.4
Other defects	381	236	61.9

MORE THAN 140 MILLIONS PAID IN DEATH CLAIMS TO METROPOLITAN BENEFICIARIES DURING 1929

Families and other beneficiaries of Metropolitan policyholders, whose death claims were paid during 1929, received $140,046,625 in settlement of these obligations. The sums paid on account of deaths from the more important causes are shown in the table on page 10.

Diseases of the heart, for the sixth consecutive year, accounted for larger claim disbursements than did any other disease or cause of death. The amount paid out ($20,236,652) was more than one-seventh of the total death claim disbursements. Both the actual sum disbursed and the ratio of that sum to total disbursements were higher than ever before. This was expected, as the heart disease deathrate in 1929 was at its maximum for all time among the insured, and in all probability among the general populations of the United States and Canada. The two other principal "degenerative diseases," cerebral hemorrhage and chronic nephritis, accounted, together, for 12.4 per cent. of the total amount paid out in death claims. Jointly, these three diseases, which are frequently contributory to each other in individual patients, were responsible, in 1929, for nearly one-third of all the deaths and for over 27 per cent. of the total sum paid out in death claims.

External causes of death (including suicides, homicides and accidents) were responsible for larger disbursements than any single disease. Accidents, if considered as a single cause, ranked second in importance to heart disease, with disbursements amounting to sixteen and one-half millions—nearly one-eighth of the total. Automobile fatalities were responsible for almost one-third of the total paid out on account of accidental deaths and for approximately 4 per cent. of the total disbursed for all causes.

Influenza and pneumonia, if considered jointly, ranked third in importance. The disbursements totaled approximately fifteen and one-quarter millions. For pneumonia, considered separately, the ratio of the amount disbursed to the total for all causes, in 1929, was smaller than in 1928, *despite* the influenza epidemic which prevailed early last year. The year would have witnessed a considerable reduction in the pneumonia deathrate, and in the cost to insurance companies, had it not been for the large number of deaths of influenzal origin during the epidemic.

But, accidents and influenza-pneumonia are, after all, *groups* of causes rather than individual causes; and cancer, for which more

than twelve and one-half millions were disbursed, ranked as the second cause from the standpoint of cost to insurance companies. The sum paid out in cancer death claims ($12,683,604) is over $1,000,000 more than was disbursed on account of tuberculosis.

Despite the fact that a new minimal deathrate was recorded for tuberculosis in 1929, approximately eleven and one-half millions were paid out on account of death claims, and this disease still ranks third in its cost to life insurance companies. The per cent. of total claim disbursements, nevertheless, is now only 8.4, as compared with 9.6 in 1928, 11.2 in 1925 and 14.3 in 1920.

Disbursements on account of diseases relating to pregnancy and childbirth amounted to $1,440,000 or 1.1 per cent. of the total. The per cent. of total paid out has been steadily declining for these diseases. Only five years ago it was 1.7. The actual sums paid in death claims have increased only slightly in recent years, despite the rapidly rising volume of insurance carried on the lives of women. The Company's program, providing for the education of pregnant women in hygiene and for ante-natal and post-natal nursing care, has undoubtedly been an important factor in reducing the deathrate and the claim disbursements arising out of puerperal conditions.

Suicide and homicide continue to be important items in the budgets of life insurance companies. Out of every $100 paid out in death claims last year, $2.50 was on account of suicide and more than $1 on account of homicide.

The acute communicable diseases of childhood have become relatively unimportant, and only one, diphtheria, appears in the table on page 10. The amount disbursed for diphtheria in 1929 ($211,123) was only one-fifth of 1 per cent. of the total. Typhoid fever, which also established a new low deathrate last year, was responsible for only three-tenths of 1 per cent. of the total disbursements, as compared with nine-tenths of 1 per cent. in 1920.

These figures show far more than the extent to which death claim payments on account of various diseases affect the budgets of life insurance companies. These deaths, to a large extent, were preventable or postponable. Every life lost was a *monetary* loss to the community in which death occurred; for the chief asset of any community is the actively and potentially productive citizen. Our vital assets have been estimated to exceed our ordinary material wealth five-fold. The death of a breadwinner means that a life full of promise for service to the community has been shortened; that a family has been broken; that children, in many cases, must

forego educational advantages which they would have otherwise enjoyed. Communities owe it to themselves to lend all possible encouragement to every measure leading to the conservation of human life.

Disbursements for Specified Causes of Death, 1929
Metropolitan Life Insurance Company

Diseases or Conditions	Amount*	Per Cent. of Total	
		1929	1928
All Causes of Death	135,927,057	100.0	100.0
Typhoid fever	391,129	.3	.3
Diphtheria	211,123	.2	.2
Influenza-pneumonia combined	15,205,440	11.2	10.5
Influenza	5,277,398	3.9	2.4
Pneumonia—All forms	9,928,042	7.3	8.1
Tuberculosis—All forms	11,453,425	8.4	9.6
Tuberculosis of respiratory system	10,577,777	7.8	8.9
Cancer—All forms	12,683,604	9.3	9.7
Cerebral hemorrhage; apoplexy	7,851,035	5.8	5.9
Diseases of the heart	20,236,652	14.9	14.8
Chronic nephritis	9,021,177	6.6	7.3
Puerperal state	1,440,242	1.1	1.1
Total external causes	21,283,023	15.7	13.4
Suicides	3,399,441	2.5	2.6
Homicides	1,458,419	1.1	1.0
Accidents	16,425,163	12.1	9.8
Accidental drowning	1,338,931	1.0	.9
Traumatism by fall	2,028,971	1.5	1.0
Railroad accidents	1,325,803	1.0	.9
Automobile accidents	5,277,012	3.9	2.9
Other accidents	6,454,446	4.7	4.1
All other causes of death	36,150,207	26.5	27.2

*Company's total disbursements in 1929 for death claims was $140,046,625. The above tabulation includes accidental death benefits on Ordinary, Intermediate, Industrial and Group policies but excludes death claim payments on paid-up and extended term insurance policies.

THE PREVENTION OF MATERNAL DEATHS

The lives of two out of every three American women who die each year, during pregnancy, in childbirth or shortly after childbirth, could be saved if these women received proper medical and nursing care of the kind given by the Maternity Center Association of New York City and by other public health organizations concerned with this problem. As more than 15,000 women die in the United States every year from the various diseases of the maternal state, this means that more than 10,000 of these deaths are preventable.

This is the conclusion of a study made by the Metropolitan Life Insurance Company of the records of 4,726 women who received the care of the above association, in New York City. Only eleven of these mothers died from diseases which arose directly out of the maternal state. This is equivalent to a maternal mortality rate of only 2.4 per 1,000 live births. In New York City at large, the maternal mortality rate was 5.3 per 1,000; and among women in the Bellevue-Yorkville Area of the City (in which the Association is located) the maternal mortality rate among women who did *not* receive care from the Association was 7.5 per 1,000. In other words, through proper medical and nursing care the mortality from maternal causes was reduced to one-third of the expected figure.

Stillbirths, and deaths of infants in the first month of life, also, are far less frequent when mothers are properly cared for. In this same area, there were only 25 stillbirths per 1,000 births among these supervised women, as contrasted with 70 per 1,000 among families not cared for by the Association, and 28 deaths of infants under one month old, as compared with 66 in the uncontrolled group.

The Metropolitan Life Insurance Company early saw the possibility of life saving among its women policyholders, and has supplied excellent nursing care during pregnancy and after childbirth. It is gratifying to report that the year 1929 saw a marked decline to a new minimum in the puerperal mortality rate among its millions of Industrial policyholders.

A way has clearly been found to remove the disgrace from which America has suffered in the high mortality of women from maternal causes. Approved prenatal and obstetrical care can readily be extended to the women of America with most beneficial results.

DEATHS FROM STRYCHNIN POISONING AMONG YOUNG CHILDREN

Children, and more especially young children, are the most frequent victims of accidental poisoning; strychnin takes a heavier toll of child life than does any other poison; more than half of the young children who die from strychnin poisoning are victims of pills or tablets containing this poison, and probably left carelessly within reach. More children between one and two years of age die from this cause than in any other age period. These are the outstanding facts brought out by the Metropolitan Life Insurance Company in a recently completed study of deaths from accidental poisoning among its nineteen million Industrial policyholders.

Of 726 policyholders of all ages who died of accidental poisoning during the years 1926, 1927 and 1928, no less than 273 (38 per cent.) were under five years of age; and 142 (nearly 20 per cent.) were in the second year of life.

In 241 of these deaths of young children definite information was available to show the kind of poison or poisonous compound which caused death. Strychnin poisoning was responsible for 82 deaths, or approximately one-third of those in which the nature of the poisonous substance was known. Next in importance was lye, followed in order by petroleum oils (kerosene and gasoline), phosphorus, oil of wintergreen, arsenic and "rat poison," carbolic acid, lead and lysol.

These findings confirm those which came out of a study of this subject by the Company in 1925, but the former study was based on a much smaller number of deaths and the results were by no means as conclusive as are the present ones.

In 46 of the 82 deaths from strychnin poisoning it was definitely shown that the children ate either cathartic pills or other pills or tablets containing this poison. It may be assumed that in some of the cases the parents did not know that these contained poison. Some of the deaths would doubtless not have happened had more conspicuous labels been placed on the containers which held the tablets. But it is probable that many of these deaths were chargeable to the carelessness of parents who, while knowing that these pills contained a deadly poison, nevertheless left them within the reach of very young children. It is significant that the greatest number of deaths occurred in the second year of life when children are in either the late-creeping or early-walking period.

HEALTH RECORD FOR JANUARY, 1929

In no previous year were January health conditions among the industrial populations of the United States and Canada quite as satisfactory as this year. The deathrate dropped to the amazingly low figure of 9.40 per 1,000. The previous best record was 9.41, in January, 1927.

Health conditions in January, 1930, were in marked contrast with those during the first month of last year. Then, an influenza epidemic which was sweeping the United States and Canada was at its peak, and the January mortality rate for all causes combined was the highest of the entire decade. Inevitably the influenza and pneumonia deathrates a year ago were in excess of any registered

since the last previous major influenza outbreak, in 1920; and as always happens when there is country-wide prevalence of influenza, the deaths of large numbers of persons who suffered from such chronic diseases as tuberculosis, heart disease, cancer, diabetes and apoplexy were hastened because their lowered resistance was insufficient to withstand both their chronic diseases and influenzal attacks. This explains the difference between the rate of 9.4 per 1,000 in January, 1930, and 13.4 in January, 1929, namely, 30 per cent.

Reductions in the January deathrate, as compared with 1929, were in evidence all over the United States and in Canada. West of the Rockies the January figure was 7.4 per 1,000 against 8.1 in 1929, and 7.5 in 1928; in the rest of the United States the January, 1930, figure was 9.6 as against 13.8 in 1929 and 9.7 in 1928; for Canada the figures were 9.3 per 1,000 for 1930, and 14.2 and 8.9 respectively for 1929 and 1928.

All four of the principal epidemic diseases of childhood registered lower deathrates than in January of last year. The drop for diphtheria from 13.4 in 1929 to 10.9 in 1930 is particularly noteworthy. When the diphtheria deathrate increased somewhat three years ago, those opposed to toxin-antitoxin immunization were disposed to make capital out of the rise, inasmuch as it occurred in the face of an increase in the number of persons who had been inoculated. Public health workers contended that the 1927 diphtheria record was merely a temporarily unfavorable phase in a situation marked by practically continuous improvement. This viewpoint has been sustained by later developments. The diphtheria deathrate dropped again in 1928, fell to a new minimum in 1929, and now bids fair to show a further and pronounced decrease to a new low point in 1930.

The only causes of death which show higher deathrates as compared with January of last year are homicides and automobile fatalities. The increase for the former is small and of little significance. The very considerable rise (13½ per cent.) in the automobile accident rate is important. It means that in a year which has started most auspiciously from the standpoint of public health there will be recorded, in all probability, still another setback for public safety. It has been estimated that 31,400 persons lost their lives in automobile accidents in Continental United States during 1929. If the 13½ per cent. increase which prevailed in January obtains for the full year, and for the general as well as the Industrial population, the automobile accident death toll for 1930 will be well in excess of 35,000.

The general deathrate for the large cities of the United States during January was 13.4 per 1,000 population. This was a little higher than for December, 1929, but much lower than for January, 1929 (19.2). Comparison with December, 1929, shows greater prevalence of scarlet fever, smallpox, influenza and measles, together with fewer cases of typhoid fever, diphtheria and poliomyelitis. As compared with January a year ago, there was greater prevalence of measles, poliomyelitis, scarlet fever, smallpox and typhoid fever with fewer cases of diphtheria and influenza.

There was a sharp rise in measles cases in January, with reports from twenty-nine states showing 18,214 cases as compared with 11,442 in December. The more noteworthy increases affected Connecticut, Indiana, Georgia, Tennessee, Arkansas, Washington and California. Scarlet fever was decidedly more prevalent in January than in December in Connecticut, Michigan, Delaware and Washington.

Reports from forty-five states show a sharp increase in smallpox cases with 6,480 reported in January against 4,553 in December. The larger increases were in North Carolina, Arkansas, Texas, Arizona, California and Ohio. According to a press report five hundred or more cases occurred in Texarkana, Texas, and in two counties in Texas and Arkansas in which Texarkana is located. An outbreak was also reported from the eastern section of North Carolina.

The following table shows the mortality among the Industrial policyholders for January, 1930; December, 1929, and January, 1929, together with the rates for the complete years 1929 and 1928.

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates* per 100,000 for Principal Causes, Premium-paying Business in Industrial Department

(Annual Basis)

MONTHS OF JANUARY, 1930; DECEMBER, 1929, AND OF JANUARY, 1929

CAUSES OF DEATH	RATE PER 100,000 LIVES EXPOSED*				
	Jan. 1930	Dec. 1929†	Jan. 1929†	Year 1929†	Year 1928
TOTAL—ALL CAUSES	940.1	869.6	1344.9	916.2	916.6
Typhoid fever	1.1	2.1	1.8	2.3	2.7
Measles	2.1	1.8	3.2	2.9	5.2
Scarlet fever	3.8	3.3	4.2	2.6	2.7
Whooping cough	4.5	3.3	9.3	5.6	5.7
Diphtheria	10.9	10.4	13.4	8.6	9.7
Influenza	26.2	20.5	197.7	41.1	24.8
Tuberculosis (All forms)	79.7	74.1	94.0	85.2	90.1
Tuberculosis of resp'y system	69.8	66.2	84.6	75.2	78.8
Cancer	74.4	75.1	80.9	76.0	75.7
Diabetes mellitus	22.3	16.7	28.2	18.0	17.6
Cerebral hemorrhage	59.3	57.7‡	68.3‡	56.9	56.7
Organic diseases of heart	161.3	144.5	202.3	144.0	142.2
Pneumonia (All forms)	108.8	87.9	212.8	86.9	89.3
Other respiratory diseases	13.2	10.8	26.2	11.4	12.4
Diarrhea and enteritis	11.6	12.7	14.2	20.4	24.0
Bright's disease (Chronic nephritis)	73.7	65.6	85.7	68.1	70.5
Puerperal state	12.0	11.4	14.9	13.3	13.9
Suicides	8.6	7.5	8.7	8.4	8.3
Homicides	7.0	6.9	6.7	6.4	6.7
Other external causes (excluding suicides and homicides)	61.3	65.6	62.1	63.9	62.6
Traumatism by automobiles	20.2	21.3	17.8	20.6	18.4
All other causes	198.4	191.8	210.4	194.0	195.7

*All figures in this table include infants insured under one year of age.
†All 1929 deathrates subject to slight correction, as they are based on provisional estimate of lives exposed to risk.
‡Rate not comparable with that for 1930.

Correspondence on the subjects discussed in these BULLETINS may be addressed to: The Editor,

STATISTICAL BULLETIN,
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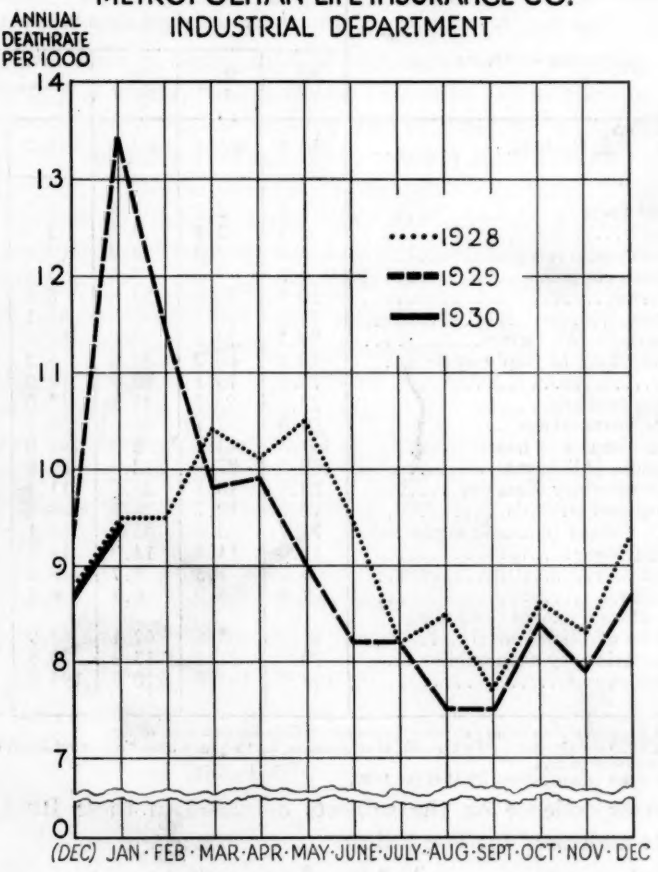
1 Madison Avenue, New York City.

DEATHRATES
FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE CO.
INDUSTRIAL DEPARTMENT



1928*	9.5	9.5	10.4	10.1	10.5	9.5	8.2	8.5	7.7	8.6	8.3	9.3
1929	13.4	11.4	9.8	9.9	9.0	8.2	8.2	7.5	7.5	8.4	7.9	8.7
1930	9.4											

* Rates for 1928 are final.

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